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NEW SPECIES AND SOME REMARKS ON THE GENUS CEROPALES LATREILLE (HYMENOPTERA: CEROPALIDAE)

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Abstract

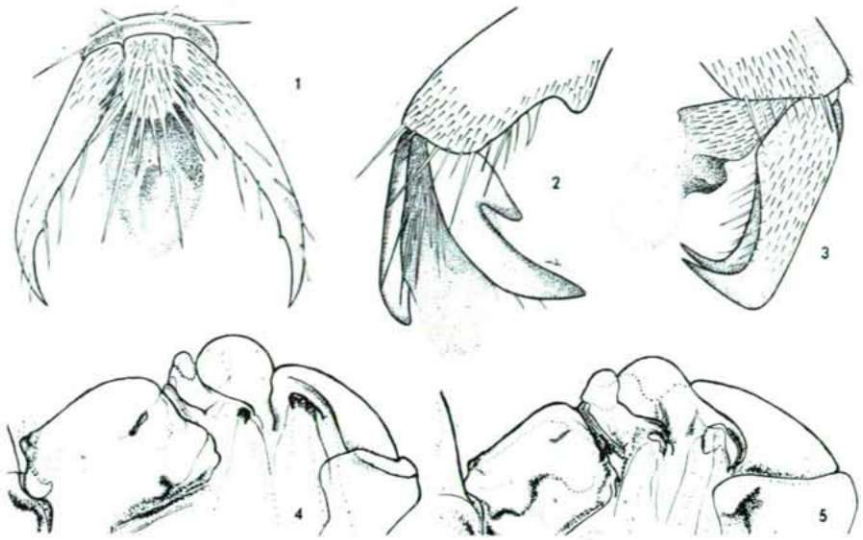
Author discusses the species belonging to the genus *Ceropales* LATREILLE. He considers all the subgenera of Wolf's and Priesner's schemes as independent, higher taxa, i.e. genera. Distribution data appended and designations of holo- and lectotypes are given for the following species: *C. turcomanus, C. magnificus, C. altaicus, C. r. ruficornis, C. r. gilvus, C. sibiricus, C. erythropodus.* New taxa are *C. trjapitzini* sp. n., *C. maculatus turcmenensis* subsp. n., *C. albicinctus wolfi* subsp. n., *C. a. mediterranicus* subsp. n. Author describes the male of *C. bicoloripes* MÓCZÁR, establishes several new statuses and complete them with distributions data.

The old genus *Ceropales* LATREILLE, 1796 is widespread all the world and the more than 100 at present known species are morphologically so different that — similar to the earlier homogeneous genera *Odynerus, Crabro* etc. — it is reasonable to divide it into independent genera (MÓCZÁR 1978). The principles of the distribution are given by the subgenus scheme of WOLF (1965) and PRIESNER (1969). Only those species of *Ceropales* s. str. are discussed here, which are noteworthy either from systematical, or from zoogeographical point of view, and are found in the following collections (after the locality names in brackets): the Zoological Institute of the Academy of Science, Leningrad (V. TOBIAS), Rijksmuseum von Natuurlijke Historie, Leiden (I. T. WIEBES), Eidg. Technische Hochschule, Zürich (P. BOVEY and W. SAUTER), Naturhistorisches Museum Zoologische Abteilung, Wien (M. FISCHER), Zoological Department of the Hungarian Natural History Museum, Budapest (J. PAPP). I express my grateful acknowledgements for the loan of the material. The South African and American species will be treated later on. The following characters are considered as the most important ones of the *Ceropales* genus.

Ceropales LATREILLE

Ceropales LATREILLE, 1796, Préc. car. gén. Insect.: 123 nr. XXV.
Ceropales subgenus *Ceropales:* 1965, WOLF, Nachr. Nat.-Mus. Aschaffenburg, H. *72:* 37
Ceropales s. str.: 1969, FRIESNER, Naturkundl. Jb. Linz, 115, 118 ♀♂

Both claws of fore (♀) and middle (♀♂) tarsus as well as outer claw of fore tarsus (♂) with a short erect and acute subapical tooth (Fig. 1); inner claw of fore tarsus (♂) very deeply split owing to the unusually large, not truncate inner tooth basally (Fig. 2). Sometimes (in ♂ of the *fulvipes* group) both claws of middle tarsus specialized and similar to the very deeply split tooth of the fore inner claw of the male belonging to another species. Inner side of last tarsal joint of fore leg



Figs. 1—3. Claws of *Ceropales* LATREILLE, 1 = middle leg (♀♂); 2 = inner claw and last tarsal joint of fore tarsus (♂); 3 = hind leg. — Figs. 4—5. Upper margin of propodeum-mesonotum 4 = *Ceropales maculatus maculatus* FABRICIUS; 5 = *C. ruficornis ruficornis* GUSSAKOVSKIJ (Figs. 1—3: MÓCZÁR, 1967, Figs. 4—5: A. FAZEKAS).

deeply emarginated (Fig. 2). Both claws of the hind tarsus rectangularly curved (Fig. 3). Labrum large, conspicuously exposed; eyes divergent dorsally, inner margins concave above. Propodeum gradually convex in lateral view (Fig. 4) or when distally more flat than remarkably convex basally (Fig. 5), i.e. arched and joining postnotum nearly rectangulary. Last abdominal segments (♀) strongly compressed.
Typ. gen.: *Ceropales maculatus maculatus* (FABRICIUS), 1775 ♀♂.

Ceropales variegatus (FABRICIUS)

Evania variegata FABRICIUS, 1798, Suppl. ent. syst.: 241 nr. 2—3
Ceropales variegatus: 1954, MÓCZÁR: Folia Ent. Hung., (S.n.) *7*: 149
Ceropales (Ceropales) variegatus: 1965, WOLF, Nachr. Nat.-Mus. Aschaffenburg, *72*: 38 ♀♂
Ceropales (s. s.) *variegatus:* 1972, WOLF, Insecta Helvetica Fauna: *5* Hym.: 166, 168 ♀♂

Specimens examined: Portugalia: Abrunhosa 31. X. 1944 1♀ NFdANDRADE (Zürich). — Spain: Parade de Rubiales (Salamanca 24. VI. 1961 1♀ on Thapsia villosa v.d. VECHT (Budapest); prov. Bajadoz S. of Monesterio, 700 m 7—8. V. 1960 1♂ Exc. R. M. N. H. (Leiden);? Lerop 12. VIII. 1950 1♂ SANDERS (Leiden). — Italy: Bologna 2. IX. 1962 1♂ (Vienna). — Schwitzerland: Schweiz 1♂ KOHL (Leningrad). — FR Germany: Würzburg 1♀ (Leningrad). — Austria: Umg. Linz 20—21. VIII. 1930 1♂ 2♀ PRIESNER (Vienna); Winden, Bgld. 18. VII. 1963 1♀ PRIESNER (Vienna); Marschtrenk 11. VIII. 1960 1♂ PRIESNER (Vienna). — Hungary: Simontornya 19. VIII. 1929 1♀ PILLICH (Vienna); see MÓCZÁR, 1954 (Budapest) Kecskemét 20. VII. 1962 1♀ BAJÁRI (Budapest); Kelebia 12. IX. 1962 1♂ MÓCZÁR (Budapest); Kéthalom 13. VIII. 1963 1♀ MÓCZÁR (Budapest); Gyula 5—9 .VII., 1—2., 19—20. IX. 1963 11♂ MÓCZÁR (Budapest). — Romania: Agigea 8. VI. 1968. 1♂, 11. IX. 1968. 1♀ 2♂ NAGY (Budapest); Caraorman 24. VIII. 1968. 1♀ NAGY (Budapest). — Russian SSR: (Europe =) Sarepta 1♂ BECKER, 17. VI. 1905 2♀ KOCH (Leningrad); Penza 27—29 VI. 1964 1♀ TSCHEKANOVSKIJ (Leningrad); Mons B. Bogdo Astrachan Gouv. 29. V. 1917 1♂ KUZNETZOV (Leningrad); Gremyatshka, =Grem'acje Dankovsky uezd,

Ryasan Gouv. 28. VII. 1901 1♂1♀ SEMENOV (Leningrad); Orenburg 28. VII. 1922 1♀ (Leningrad); Saratov 9. VI. 1898 3♂ KALKOV (Leningrad); (Asia =) West part of Karsunsky uezd, Simbirsk Gouv. 7. VII. 1964 1♂ TSHEKANOVSKY (Leningrad); Britsh-Mulla 31. VII. 1922 1♀ KUZNETZOV (Leningrad); Iskutsk 1♀ JAKOVLEV (Leningrad); Dar. Kadofbi Konstantinosr. u. Poltavka 1♀ (Leningrad); Pestčanka Troitskosavsk. 10. VII. 1925 1♂ (Leningrad); Spaskoje Orb. okr. (Omszk) 10. VIII. 1930 1♂ RISAKOV (Budapest); Khabarovsk 24. VII. 1925 1♂ ENGELHARDT (Budapest). — Ukrainian SSR: Verhne-Dneprovka Orenb. 20. VII. 1934 1♂ Zimin (Leningrad); Kwiyazh, Kharkov Gouv. 18. VI. 1894 1♂ (Leningrad); Jalta 1♀ (Leningrad); Eupatoria, Krim 1♀ JAKOVLEV (Leningrad). — Georgian SSR: Ladodekhi, Georgia 1—15. V. 1891 1♂ MLOKOSSIEVITSH (Leningrad). — Armenian SSR: 15. V.—15. VII. 1♂ Delitua Armenia (Leningrad). — Azerbaidzhan SSR: Derbent Daghestan 1♂ BECKER (Leningrad); Apsheron, Baku VI. 1963 1♂ GEBEL (Leningrad). — Uzbek SSR: Thimashevo, Samark. 18. VI. 1936 1♀1♂ MELTSHIRENKO (Leningrad). — Tadzhik SSR: Dzhili-Kul. Vaksh, 12—14. VI. 1934 3♂ GUSSAKOVSKIJ (Leningrad). — Kazakh SSR: Uralsk 4. VII. 1927 1♀ RUZAJEV (Leningrad).

The specimens from the above territories correspond to the Central European specimens, only minor colour differences occur e.g. pronotum black (Spaskoje-Omszk, Pestshanka and Hungary: Gyula 1♂) and tergite 1 almost entirely black (Hungary: Gyula 2♂), as well as, spots on tergite 2 remarkably smaller, moreover the right spot on tergite 2 may be missing. Also apical end of abdomen black in the middle (Khabarovsk).

Distribution: Central, East and South Europe, Middle and South Asia.

Ceropales turcomanus GUSSAKOVSKIJ

Ceropales turcomana GUSSAKOVSKIJ, 1926, Revue Russe d'Entom., *20:* 251 ♂
Ceropales turcomana: 1931, GUSSAKOVSKIJ, Ann. Mus. Zool. Acad. Sci. l'URSS., *32:* 4, 14♂

Specimens examined: Turkmen SSR: „Kopet-Dag 29—30. IV. 888 A. P. SEMENOV", „F. MORAVICA", „Ceropales turcomana m. sp. typicum!" with GUSSAKOVSKIJ's original writing and small round, gold-coloured label (Leningrad).

However, in the original description the data of the collecting time and the name are given as 30. IV. 1888 and SEMENOV TIAN—SANSKI, nevertheless, this male specimen without doubt represents the original material and therefore must be regarded as the holotype (Leningrad).

This species is related to *C. variegatus* (FABRICIUS) and to *bicoloripes* MÓCZÁR. *C. turcomanus* distinctly differs from *C. variegatus* (FABRICIUS) in the following characters: postnotum well developed (Fig. 6), medially broadened in a slightly obtuse angle towards propodeum, its surface finely cross-wrinkled and interrupted by a deeper shiny line medially. Mesopleura moderately and sporadically punctured below tegulae. Mesonotum with scattered larger punctures (Fig. 7). Abdomen black, (not rufous) with ivory spots on tergite 1, with narrow apical and in the middle interrupted bands on tergites 2—3, there is small spot also on the right side of tergite 4, with a medial spot on the deeply excised tergite 7, with a continuous apical band on pronotum, etc.

Distribution: Turkmen SSR.

Ceropales bicoloripes MÓCZÁR, **new** ♂

Ceropales bicoloripes MÓCZÁR, 1967, Acta Zool. Acad. Sci. Hung., *13:* 387♀ Fig. 5.

Specimen examined: Russian SSR (Asia =): Blagoveščensk, 22. VII. 1928 1♀ (Budapest). — Turkmen SSR: „Taškepri r. Murgab 12. V. 1954 Tobias" 1♀ (Leningrad), 15. V. 1954 1♂, new (Budapest); Kopet Dag 29—30. IV. 1888 1♀ (Leningrad).

The colouring of this species is not perfectly uniform. The light spots and streaks are smaller and especially reduced on the male specimen. Lateral side of pronotum and mesonotum black; posterior light band of tergite 1 interrupted medially (Turkmen SSR). Hind tibiae and tarsi completely black only under side dark rufous, posterior ends of hind femora distinctly infuscated (Turkmen SSR). Yellow spots on legs very small or partly absent (Blagoveščensk). On the contrary, no black spots present below antennal sockets or on clypeus and the light spots of the invagination of eyes distinctly larger and expanded in a more or less acute angle towards the middle of frons. Also base of mandibles white not black outer orbits on the other hand, more darkened (Turkmen SSR). Sculpturally the frons of holotype (Fig. 10) with a very fine frontal sulcus; specimens from Kopet Dag and from Blagoveščensk also with a shallow deepening round the frontal sulcus. All newly examined specimens with still finer sculptured frons, with more scattered and less shallow larger punctures. Postnotum impressed medially (Fig. 8). Mesonotum with some larger punctures (Fig. 9). Last sternites compressed, produced apically (Fig. 11).

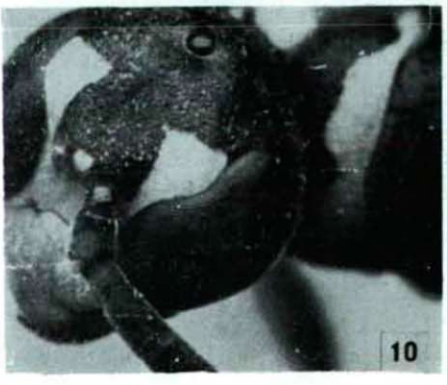
♂. — Length 7 mm. Similar in sculpture and in colour to female. Light colour more reduced, identical with the females described above from Turkmen SSR, differing only in colour of frons and abdomen, light inner edge of spots of frons only obtuse-angled. Band of tergite 1 broader, of tergite 2 only narrow, interrupted, tergite 5 with smaller, 6 with broader lateral spots, tergite 7 white and deeply excised medially. Frontal sulcus very fine, deepening shallow. Punctures of frons very fine, only velvet-like shining, larger shallow punctures can be seen only under greater magnification. This species resembles *C. variegatus* (Fabricius) especially in the single known male specimen of *C. turcomanus* Gussakovskij. Antenna with 13 joints, last tarsal joints of fore legs asymmetric, inner side excised, inner claw very deeply split owing to the unusually large, not truncate inner tooth basally.

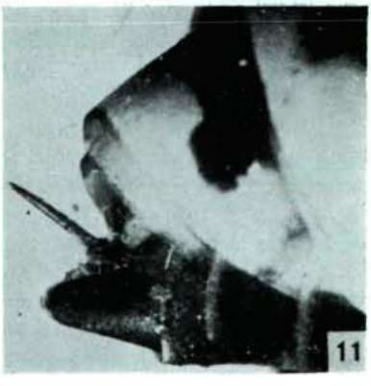
Distribution: Mongolia, Turkmen-, Russian SSR (East Asia).

Ceropales maculatus maculatus (Fabricius)

Evania maculata Fabricius, 1775, Syst. ent.: 345 nr. 108/2
Ceropales maculata: 1931, Gussakovskij, Ann. Mus. Zool. Acad. Sci. l'URSS, *32:* 7, 21♀♂
Ceropales maculatus: 1954, Móczár, Folia Ent. Hung., (S.n.) *7:*148
Ceropales maculata maculata: 1957, Townes, Unit. Stat. Nat. Mus. Bull. *209:* 241 ♀♂
Ceropales (Ceropales) maculatus maculatus: 1965, Wolf, Nachr. Nat.-Mus. Aschaffenburg, H. *72:* 37 ♀♂.
Ceropales maculatus: 1967, Móczár, Acta Zool. Acad. Sci. Hung., *13:* 393 ♂

Specimens examined: Spain: Cataluña 7. 1924. Mas 1♀ de Xarars (Budapest). — France: Cestas, Gironde 7. VI. 1961 1♂ Pronk (Leiden); Haute Marne 2. IX. 1962 1♀ v.d. Vecht (Leiden); Nelik 1♂ Saunders (Leiden). — Netherland: Bildhoven 1. VIII. 1943 1♀ van Ross (Leiden); Rijsplak, Terschelling 14. VII. 1967 1♀ Heijningen (Leiden); Valkenswaard 25. VII. 1945, 25. VIII. 1940 2♀ Blöte (Leiden); Nat. Park: De Hage Veluwe 14. VIII. 1968 1♂ Doeburg (Leiden); Zeist, Uta. 3. VIII. 1952 1♂ de Jong (Leiden); Zundert (N. Br.) 2. VIII. 1957 1♀ Lieftinck (Leiden); Radio Kootwijk 11. VIII. 1946 1♀ on Reseda and Epilobium, v. Rossem (Leiden); Nordberg: Rendkum 24. VIII. 1946, 27. VIII. 1944 2♀ (Leiden); Oisterwijk (N-B) 21. VIII. 1923 1♀ Sonneveldt (Leiden). — Switzerland: Luzern 1. VII. 1♀ (Leningrad). — FR





Figs. 6—7. *Ceropales turcomanus* GUSSAKOVSKIJ, 6 = thorax and tergite 1; 7 = mesonotum. — Figs. 8—11. *C. bicoloripes* MÓCZÁR, 8 = thorax and tergite 1; 9 = pro-, mesonotum-postscutellum; 10 = head; 11 = last abdominal segments (Orig.)

Germany: Würzburg 2♂ 3♀ MORAWITZ (Leningrad); Harz 1♀ 1♂ (Leningrad). — DR Germany: Carolath (Slesien) 2♂ 4♀ MÜLLER (Leningrad). — Austria: Graz 7—16. VII. 1937 1♂ MÉHES (Budapest); Bad Aussee 29. VIII. 1960 1♀ de JONG (Leiden). — Slovakia: Kassa-Bankó (= Košice) VII—VIII. 1939 2♀ 2♂ MÉHES (Budapest); Nyitra (= Nitra) 1887 1♂ MOCSÁRY (Budapest). — Poland: Bielowicza 13. VIII. 1957 1♂ Soós (Budapest); Radoshitsy, Konsky uezd. 24. VII. 1895 1♀ JAKOBSON (Leningrad). — Hungary: see MÓCZÁR, 1954 (Budapest); Kunfehértó 28—31. V. 1962 1♀ 3♂ SOLYMOSNÉ (Budapest); Tompa 11. IX. 1952 1♂ MÓCZÁR (Budapest); Kiskunfélegyháza: Herketó 23. VII. 1962 1♂ MÓCZÁR (Budapest); Kéthalom 13. VIII. 1963 1♂ MÓCZÁR (Budapest); Gyula 30. V., 6., 9. VII. 1963 5♂ MÓCZÁR (Budapest). — Romania: Agigea 18. VII. 1964 1♂ NAGY (Budapest); Hagienidb. 27. VIII. 1968 1♀ NAGY (Budapest). — Yugoslavia: Tetovov, 1800 m 15. VIII. 1963 1♂ (Leiden), — Albania: Ipek 26. VII. 1917 1♀ CSIKI (Budapest). — Italy: Fasana 26. X. 1937 1♀ 1♂ MIJUSSEN (Leiden). — Corse: Bicchisano 2. VII. 1965 1♂ AUBERT (Budapest). — Cyprus: Cherkes 19. VI. 1954 1♀ MAVROMOUSTAKIS (Leiden). — Turkey: Asia. min.: Eski-Tshehir 20. VIII. 1906 1♂ LENDL (Budapest). — Estonian SSR: Glyebova Gorka (= Glybokaja) (= Tartu) 8. VII. 1961 1♂ MORAWITZ (Leningrad). — Russian SSR: (Europe =) Belejev u Szimsz 16. VI. 1907 1♂ GRUGORJEV (Leningrad); st. Hibini Murm. Arhang. (peninsula Kola!) 17. VIII. 1928 1♂ TSHEBUROVA (Budapest); Berditsino, Yarosl. 17. VII. 1896 1♂ YAKOLEV (Leningrad); Yaroslavl', Vertotschi ostr. 27. VI. 1927 1♀, 20. VIII. 1928 1♂ SHESTAKOV (Leningrad); Volozhsk. kraj. Mahtnaja 26. VII. 1933 1♀ (Leningrad); Dnyeprovka 27. VIII. 1934 1♀ (Leningrad); Gremjacka, Dankovsk 17. VI. 1890 1♀, 10. VII. 1912 1♂ (Leningrad); 29. VI. 1890 1♂, SEMENOV (Leningrad); Krasnyj Jar. Astrah. gub. 16. VIII. 1927 1♀ POPOV (Leningrad); Jekaterinoslav 1♂ (Leningrad); Kolomaggi 1♀ MORAWITZ (Leningrad); Dajdarka Kostr. 30. VIII. 1924 1♀, 26. VII. 1935 1♂ GUSSAKOVSKIJ (Leningrad); Vasilevskoje Kostru 21., 24. VII. 1933 3♀ 2♂, 26. VII. 1933 1♂ GUSSAKOVSKIJ (Leningrad); Tverskaya g. Maksatiha 29. VIII. 1926 1♀ SIDORSKIJ (Leningrad); Kostroma 6. VIII. 1933 1♀, 19. VII. 1933 2♀ 3♂ GUSSAKOVSKIJ (Leningrad); Sarepta 16—20. VIII. 1928 1♀ 1♂ Shestakov (Leningrad); Ural protyiv Kharkina 15. VII. 1951 1♀ RUBOLYF (Leningrad); Kyštym Uralsk obl. 27. VIII. 1929. 1♀ BURAKOVA (Leningrad); Sr. Volzhek Kraj. Atsebutik 10. VIII. 1933 1♂ ZIMIN (Budapest); Turgoyak, 1♀ SHESTAKOVO (Leningrad); Mar'ino, Tuapse okr. Tshernom 1♂ SAHNOVSKIJ (Leningrad); Filino-karer 29. VII. 1927 1♀, 1, 6, 31. VIII. 1927 3♀ (Leningrad); ? Disprovska 27. VIII. 1934 1♂ (Leningrad); ? Konetankin 22, 23. 1871 1♂ (Leningrad); ? Silize 3. VII. 1921 1♂ (Leningrad); (Asia =) Padunskaja V. Tunguskye Irk. Tshekanovsk, 500 km N from Irkutsk 1♀ 1♂ (Leningrad); Irkutsk 5♀ (Leningrad); Ot. Kurgana 15. VIII. 1897 1♀ (Leningrad); Minusinsk 1♂ EHENBERG (Leningrad); Ussuri 1♀ KASAKEWITSCH (Budapest); ? Kastrajn 8. VIII. 1923 1♂ GUSSAKOVSKIJ (Budapest); Khabarovsk 15. VII. 1925 1♂ ENGELHARDT (Leningrad); Amurskiÿ okr. Tupidun 2. VIII. 1928 1♂ GUSSAKOVSKIJ; Pestshanka, Troitskosavsk u. Zabajk 20. VII. 1926 1♂ MIHNO (Budapest); Dar. Kadofbi Konstantinosr. 22. VII. 1923 Poltavka 1♂ (Leningrad). — Ukrainian SSR: Vernhe-Dneprovka Orenb. 10, 20. VII. 1934 1♀, 27. VIII. 1934 1♂ ZIMIN (Leningrad); Simferopol 14—15. VI. 1928 2♀ KAZANSKIJ (Leningrad). — Azerbaidzhan SSR: ACCP. Gelachang Zakat 21. VIII. 1928 1♂ BOTSCHARNIKOV (Leningrad). — Tadzhik SSR: Kontdara 1100 m. 7. VIII. 1938 1♀ GUSSAKOVSKIJ (Leningrad). — Kazakh SSR: Borovoe, Kokchetav 3, 22, 24, 26. VII., 7, 22, 24, 26. VII. 1932 12♂ 9♀ POPOV (Leningrad); Pavlodar 27. VII. 1928 1♀ BELIZIN (Budapest); Lebyazhya Petergof. 8. VII. 1899 1♂ (Leningrad); Semipalatinsk 2♀ 5♂ MORAWITZ (Leningrad); Alasanskoe gora VII. 1871 1♂ PRNEVALVEKIJ (Leningrad). — Afganistan: Darnul 3. VIII. 1923 1♂ (Leningrad). — Mongolia: Sutszukte, Kentej 13. VII. 1925 1♀ KOZLOV (Budapest); Khalkha 6. VIII. 1899 1♀ (Leningrad); — Mont. Delgel-Khangai-Ula, Middle Gobi Aimak 25. VII. 1967 1♀ ZAITZEV (Leningrad); 80 km SSE from Nomgon, Bordzan-Gobi, South Gobi Aimak, 5—8. VIII. 1967 1♀ ZAITZEV (Leningrad). — China: Kansu, Nan-piu (Budapest).

The variability in colour and in sculpture of this species is similar to other European and Asiatic specimens. Several female specimens have a small yellow spot on tergite 4 in the middle. The distal end of femora 3 partly darker on the smaller male at the outer side (e. g. Kostroma, RSSR) or dark fuscous not only on both ends of femora 3 but dark fuscous nearly also on the apical half (e. g. Pestshanka, RSSR). The light spots are remarkably smaller also on the smaller specimens (♀♂). Sometimes the lateral spots of tergite 1 are remarkably small and the apical band is also broken medially (♂) (e.g. Kastrajn, RSSR). Exceptionally a female specimen from Mongolia (Sutszukte) has two slightly extended light spots towards the middle

of tergite 1 connected with a rufous band. The two lateral spots may extend towards the middle of tergite 1 to such a degree, that they nearly fuse (e.g. Turgoyak, RSSR), or in fact completely fuse (e.g. Pavlodar ♀, Kazakh SSR). This extreme form with a yellow band on tergite 1 was described as var. or subsp. *flavopicta* by GUSSAKOVSKIJ in 1931 from Mongolia. Its sculpture is remarkably finer especially on the propodeum of the smaller male specimens (e.g. Kostroma RSSR) and in contrary there are also smaller male specimens (Hungary: Kunfehértó, Tompa, Gyula) with more coarse sculpture. Posterior margin of tergite 1 of a specimen from China brownish behind the yellow band; after all the light colour of the body, except legs not pure white, rather yellowish.

Distribution: Europe, from peninsula Kola to North Africa and Asia to Mongolia, to Armenian-, Azerbaidzhan-, Tadzhik-, Kazakh-SSR, Afganistan, China and Japan.

Ceropales maculatus maior COSTA

Ceropales maculata var. *maior* COSTA, 1888, Atti. Accad. Sci. fis. mat. Napoli, *2:* 11
Ceropales maculatus maior: 1975, WOLF, Zool. Mededel., *49:* 48♀

Specimen examined: Portugal: Douro-Resende 16—19. VII. 1959 1♀ PMF VERHOEFF (Zürich). — Spain: Mallorca 1.24. VI. 1954 1♀ KLOKKE-MOLL (Budapest). — Turkmen SSR: Čili, Kopet-Dag, Zakasp obl. 3. VI. 1914 2♀ GOLBEK (Budapest, Leningrad); the same data, but 6—8. V. 1913 1♀ (Leningrad); Kara-Kala 12. VI. 1952 1♀ KRYZHANOVSKIJ (Budapest).

This subspecies is characterized on the basis of the above listed specimens especially by the almost entirely black femora, by the small or very small ivory spots of tergite 1, by the remarkably narrow apical ivory band of tergite 2, by the normal medial spots on tergites 5 and 6. Clypeus usually with two small ivory spots laterally. The light spots sometimes slightly yellowish. The colouring is not completely uniform. Under the edge of femora 3 on a Portugese specimen surface rufous, pronotum without a light apical band on a specimen from Spain, the apical band interrupted on specimen from Portugal. One of the specimens from Kopet-Dag with a very small light band medially on tergite 4. The single difference is that tibiae and tarsi rufous on specimens from Turkmen SSR, but the same are fuscous to a great extent on specimens from Portugal and Spain. Completely black tergite 1, described by COSTA from Sicily, is not found on specimens originating from Portugal or Spain nor on those from Turkmen SSR. In spite of these differences and the great distance between their known localities I suggest that all these specimens be regarded as the same subspecies.

Distribution: South Europe, Turkmen SSR.

Ceropales maculatus turcmenensis subsp. n.

♂. — Similar to *maculatus maculatus* FABRICIUS, 1775, but differs from it as follows: femora black and only apically rufous, tergite 4 with rudimentary white apical band, tergites 5—6 with narrow apical band, tergite 7 with two lateral spots. Yellow longitudinal streak below antennal sockets only on specimen from Kara-Kala. Near to *C. maculatus caenosus* TOWNES, 1957, but light spots white not clear yellow and mesopleuron black, without a small clear yellow spot. Holotype with

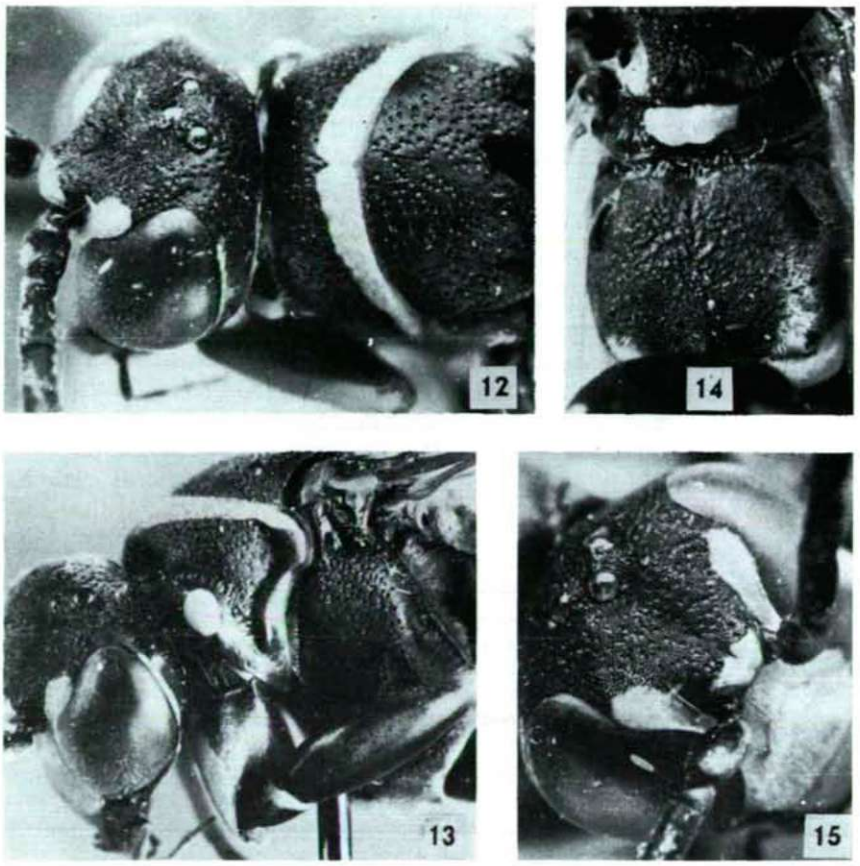
a distinct longitudinal sulcus at base of propodeum medially, paratype only with trace of that. Sculpture of propodeum only somewhat coarser than on *C. maculatus maculatus* FABRICIUS.

Specimens examined: Turkmen SSR: "Bagir (Ashabad) 21—23. IV. 929 A. SHESTAKOV", "*Ceropales maculata* FB. V. GUSSAKOVSKIJ det." 1♂ holotype Hym. Typ. No 3643 (Budapest); "Bagir (Ashabad) 21—23. IV. 929 A. SHESTAKOV", "k. SHESTAKOVA" 1♂ paratype (Leningrad); Kara-Kala, 26. VI. 1952 1♂ BORISOVA (Budapest).

Ceropales magnificus GUSSAKOVSKIJ

Ceropales magnifica GUSSAKOVSKIJ, 1926, Revue Russe d'Entom., *20*:252♂
Ceropales magnifica: 1931, GUSSAKOVSKIJ, Ann. Mus. Zoll. Acad. Sci. l'URSS, *32*:22♂

Specimen examined: Russian SSR: "St. Imanpo, Mandsuria, 18. VII. 1914 EMELJANOV", a small rounded golden coloured label, "*Ceropales magnifica* n. sp." in GUSSAKOVSKIJ's original writing (Leningrad).



Figs. 12—15. *Ceropales magnificus* GUSSAKOVSKIJ, 12=head, pro- and mesonotum viewed from above; 13=the same in lateral view; 14=scutellum — propodeum; 15=head (Orig.)

It corresponds with the original description, therefore must be regarded as the holotype of this species. The species is a relative of *C. maculatus maculatus* (FABRICIUS), but frons with some distinct larger punctures (Fig. 15), pronotum with apical yellow band and with a small hyaline margin (Fig. 12—13). Light colour of body yellow, tergite 3, as well as, femora 3 mostly black. Sculpture especially on propodeum distinctly coarser (Fig. 14) than on *maculatus maculatus* (FABRICIUS). Mesonotum, mesopleura with deep scattered punctures.

Distribution: Russian SSR: Manchuria.

Ceropales altaicus F. MORAWITZ

Ceropales altaica F. MORAWITZ, 1888, Trudy russk. ent. Obshch., *22*:272 ♂
Ceropales altaica: 1931, GUSSAKOVSKIJ, Ann. Mus. Zool. Acad. Sci. l'URSS, *32*:20 ♂

Specimen examined: Kazakh SSR: "M. Kolbinsky, Sentasch-Piket", a small round and gold-coloured label, "k. F. MORAWITZ", "altaica F. MOR. ♂" with MORAWITZ's hand writing, 1 ♂ (Leningrad); the some locality and "*Ceropales altaica* ♂ F. MORAWITZ" 1 ♂ (Budapest).

They represent the original material, therefore the first can be regarded as lectotype the second one as paralectotype (Hym. Typ. No. 3644, Budapest). According to MORAWITZ: "Sentasch ist ein Wachposten in den kolbinskischen Bergen, den Süd-Ausläuferen des Altai, Terr. Semipalatinsk."

It is a very charakteristic species with rich yellow colour: frons largely, whole pronotum, metapleura with two spots (Fig. 16—17), tergites 1—2 with yellow broader than their half, legs largely yellowish rufous, etc. Propodeum mat, granulated, with wrinkles directed to the base of abdomen and with two lateral distinct ridge arching towards stigma (Fig. 18). Last sternites: Fig. 19.

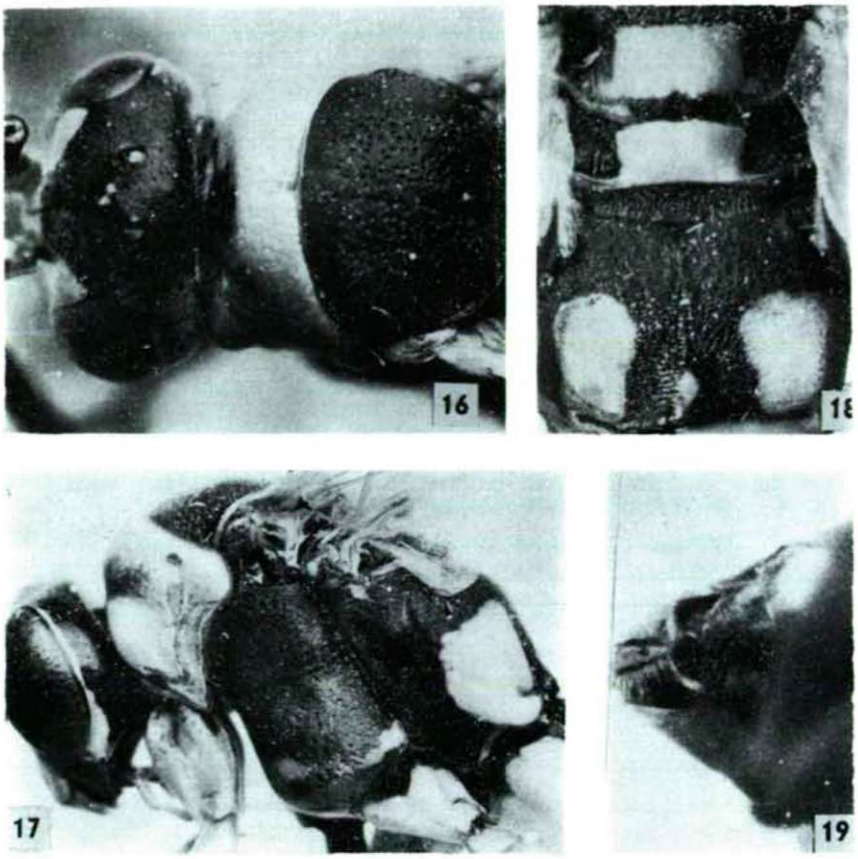
Distribution: South middle part of Russian SSR.

Ceropales sibiricus RADOSZKOWSKI

Ceropales sibiricus RADOSZKOVSKI, 1888, Bull. Soc. nat. Moscou, *2*:490 ♀♂
Ceropales sibirica: 1926, GUSSAKOVSKIJ, Rev. Russ. d'Entom. Leningrad, *20*:254♀♂
Ceropales latitarsis HAUPT, 1938, Arkiv för Zoologie, *30A*: 13♀♂ Fig. 5—6
Ceropales sibiricus: 1977, MÓCZÁR, Ann. Hist,-nat. Mus. Nat. Hung., *69*:255♀♂ Taf. I. Fig. 4, Taf. II. Fig. 3—4.

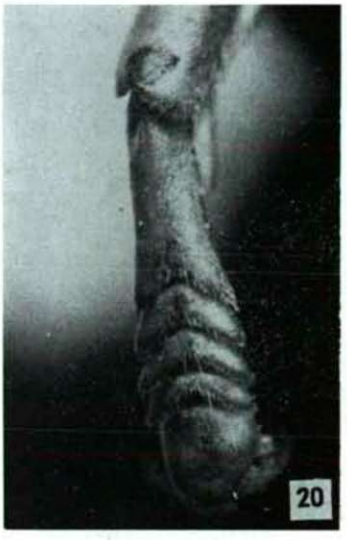
Specimens examined: Russian SSR: (Asia=): "Minusinsk Ongudai 1♂" (Leningrad); Ongudai, Bijsk Mont. Tomsk Gouv. 8. V. 1929 2♂ JAKOBSON (Leningrad); Transbaikal, Čita 1♀ (Budapest); Čita-Motschun 1♀ KOBYDEV (Leningrad); Gusinoje, Selenginsk u. Zab. Mihno 21—22. VII. 1927 1♀ 2♂ TSHOGANNOR (Leningrad); Enisey. Gouv. Imek 1♀ JAKOBSON (Budapest); Khabarovsk 15. VII. 1926 1♀ (Leningrad); Razyezd, Soktui, Nertshinsk uezd Transbaikal 7—23. VI. 1925 5♀ 8♂ VINOGRADOV (Leningrad); Selenga, Zaruvinye, Zabajk 26—27. VI. 1928 1♀ (Leningrad); ? Mandeina 1♀ GUSSAKOVSKIJ (Budapest); Osnatjenn 1♀ EHNBERG (Leningrad). — MONGOLIA: Dol. r. Tolü, Khalkha 20. VI. 1925 1♂ (Leningrad); Kholt sev. Gobi 16. VI. 1926 1♀ 1♂, 14. VII. 1926 1♀ 1♂, 15—19. VII. 1926 1♂ KOZLOV (Leningrad); Bain-Baritye 11. VI. 1909 1♀ 1♂ KOZLOV (Leningrad); Sarhaj-hunduj, Halha 24. VII. 1909 2♀ (Budapest, Leningrad); Ceorgolhairhan, Halha 23. VII. 1909 1♂ KOZLOV (Budapest); Lamin, Hangaj 18. VII. 1926 1♂ KIRITSHENKO (Budapest) 1♂ (Leningrad); N. Mongolei 1892 1♂ 1♀ LEDER (Vienna); 103 ♀♂ (see MÓCZÁR 1977).

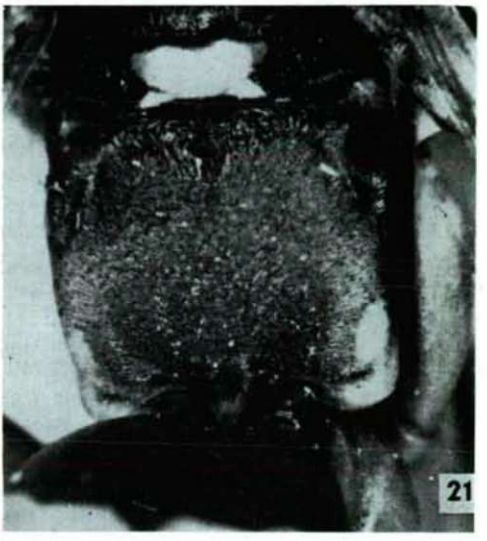
In the original description the holotype was not designated, only the locality was given "Sibérie (Kultuk, Minousinsk)", therefore I suggest to regard this speciemen



Figs. 16—19. *Ceropales altaicus* F. MORAWITZ, 16 = head, pro- and mesonotum viewed from above; 17 = the same in lateral view; 18 = scutellum — propodeum; 19 = last abdominal sternites (Orig.)

from Minusinsk as the lectotype (Leningrad). On the basis of 123 ♀♂ examined specimens the species seems to be variable especially in colour. Sometimes the continuous black streak between the antennal sockets and the lower margin of labrum narrowly yellowish interrupted (♀♂). This charakter represents an advance to *C. andersoni* HAUPT, 1938, howewer, frons black above the antennal sockets, consequently, these specimens cannot be *C. andersoni* HAUPT. Sometimes darker ferruginous small margins appear above the lateral yellow spots on propodeum (Zaruvinye, RSSR) or dark ferrugineous and transparent band connect the lateral apical bands of tergite 1 (Kholt sev. Gobi, Mongolia). Sometimes the lateral yellow spots of propodeum are missing on the smaller specimens (Georgol-hairhan, Mongolia, Transbaikalia, Russian SSR). RADOSZKOWSKI did not give in his diagnosis the very broad fore tarsi (Fig. 20), therefore had been described by HAUPT as *C. latitarsis* sp. n. in the earlier material I too misidentified this species (MÓCZÁR





Figs. 20. Fore tarsal joints of *Ceropales sibiricus* RADOSZKOWSKI, ♂. — Fig. 21. Postscutellum-propodeum of *C. erythropodus* GUSSAKOVSKIJ (Orig.)

1977). There is no doubt about it, that the HAUPT's Figs. 5—6 of *latitarsis* HAUPT entirely correspond to *C. sibiricus* RADOSZKOWSKI.

Distribution: Asia, Russian SSR, Mongolei.

Ceropales ruficornis ruficornis GUSSAKOVSKIJ **stat. n.**

Ceropales ruficornis GUSSAKOVSKIJ, 1931, Ann. Mus. Zool. Acad. Sci. l'URSS, *32*:12 ♀♂

Specimens examined: Russian SSR: (Asia—SE from Baical): "ACCP Altan 20. VI. 1927 I ZAPOLSKY" "k. GUSSAKOVSKOGO" 1♂ (Leningrad). — Azerbaidzhan SSR: "Kurutshaj 2. VI. 1927 GUSSAKOVSKIJ", "*Ceropales ruficornis* m. ♂ specimen typicum V. GUSSAKOVSKIJ det." with author's hand writing, "k. GUSSAKOVSKOGO" 1♂ (Budapest); without locality label, but with GUSSAKOVSKIJ's original det. label: "*Ceropales ruficornis* m. ♀ sp. typicum GUSSAKOVSKIJ" 1♀ (Leningrad). — Turkmen SSR: Iman-baba 1932 SHESTAKOV 1♂ (Budapest). — Cyprus: Zakaki VII. 1936 1♀ (Budapest); Zakaki VIII. 1935 1♂ (Budapest).

In the original description the holotype was not designated, it was given only "Azerbaidzhan, sz. Altan, VI. 1927 2♂", therefore, I suggest the one ♂ from Altan on the basis of the original material as lectotype and the other ♂ specimen from Kuru-tschaj = Kuručay as paralectotype (Hym. Typ. No. 3645, Budapest) (also from Azerbaidzhan and also with the same data of collecting time), on the basis of GUSSAKOVSKIJ's original writing in spite of the fact, that the nearer locality Kuručay of the second male was not designated by GUSSAKOVSKIJ.

The species is easily recognizable since all the tergites are marked with yellow bands, by the normal tarsi 1—2, by the large yellow spot extending between inner orbits from antennal sockets nearly to lower ocellus, by the coarsely rugose propodeum, by the rich yellow coloured body. Since the species is closely related to

C. gilvus HAUPT, 1962, I suggest to regard it as *C. ruficornis* subspecies *ruficornis* GUSSAKOVSKIJ.

Distribution: Russian- (Asia), Azerbaidzhan-, Turkmen SSR and Cyprus.

Ceropales ruficornis gilvus HAUPT **stat. n.**

Ceropales gilvus HAUPT, 1962, Bull. Res. Counc. of. Israel, *11B* (1—2): 32 ♀♂
Ceropales gilvus: 1966, PRIESNER, Israel Journ. Ent., *1:* 151—152 ♂

Specimens examined: Palestine: "Jerusalem 12. VI. 1941 BYTINSKI-SALZ" 1♀ (Hym. Typ. No. 3646, Budapest); Jerusalem 29. V. 1941 BYTINSKI-SALZ 1♂ (Vienna).

The first specimen is one of the paratypes, because the collecting data and the locality agree with HAUPT's diagnosis and the female specimen was identified by the author in 1952 according to the HAUPT's det. label with HAUPT's hand writing. This species is very similar to *C. ruficornis* GUSSAKOVSKIJ especially to the specimen without locality label but which was identified by GUSSAKOVSKIJ (see above). The very minute differences are as follows: on paratype of *C. gilvus* (♀) we cannot find the black streak on tergite 1 medially which broadly ends before posterior margin on *ruficornis*; the yellow bands on tergites 2—3 on *gilvus* (♀) distinctly broader than on *ruficornis*; the minute black line is present only on *gilvus* (♀) in the middle of frons above the antennal sockets; on *gilvus* (♀♂) there is also a very small yellow spot in the angle between tegulae and pronotum; the middle of the pronotum broadly impressed on *ruficornis* and narrowly on *gilvus,* the latter similar to the female from Cyprus, on which the colouring distinctly retired. It may be possible, that *gilvus* HAUPT will prove to be a synonym of *ruficornis* GUSSAKOVSKIJ after the examination of the holotype (♀) and also the designated other paratypes (♀♀ ♂♂) given by HAUPT in his description. In the meantime I propose to treat this taxon only as a subspecies.

Distribution: Palestine.

Ceropales solskyi RADOSZKOWSKI

Ceropales Solskyi RADOSZKOWSKI, 1877, in FEDCENKO: Puteš. Turkes. *14.* II. Zoogeogr. Isl. V. *3.* Sphegidae: 13 ♂ n. 1. Tab. VI. Fig. 8 ♂
Ceropales solskyi: 1931, GUSSAKOVSKIJ, Ann. Mus. Zool. Acad. Sci. l'USSR, 32:17 ♀♂

Specimens examined: Tadzhik SSR: Kalai—Vamar, Roman. v Buchara (=Rušhan), Lazdin 14. VII. 1915 1♀ (Budapest); ur. Rujdasty 3000 m 40 km N. Stalinb. 4. IX. 1937 2♂ (Budapest), 1♀ 2♂ (Leningrad).

This species was described from Ferghana (10. Aug. 1871), it is easily recognizable also by tergites 3—4 with their apical light band, by the normal tarsi 1—2 (♀ ♂), by the broad black streak running from ocellus to the lower margin of clypeus, by the mostly yellow-black legs, by the rich yellow coloured tergite 1 which is connected with the rough surface of propodeum, etc.

Distribution: Uzbek-, Turkmen — and Tadzhik SSR.

Ceropales trjapitzini sp. n.

♀. — Length 9 mm. Black. Inner orbits beginning at excision of eyes (Fig. 22) and broadening towards clypeus, tubercle between antennal sockets, under side of antennal joints 1—2, transverse streak along the margin of clypeus, clypeus and labrum except a small round black spot medially, a very small streak on upper-outer eye margin, a rather broad hind margin of pronotum (Fig. 23), narrow only laterally, a spot on front callus of pronotum (Fig. 23), on postcutellum and on propodeum laterally (Fig. 24), whole horizontal level of tergite 1 except hind narrow black margin, a broad band on tergites 2—6, lateral spots on sternites 2 and 4, ventral side of coxae, a small streak on trochanters distally, apical half of fore femora at outer side, nearly whole outer side of middle femora, a longitudinal streak on upper side and apex of hind femora, all tibiae except outer black and partly rufous apex of hind ones, metatarsi and tarsal joints partly, yellow; apex of mandibles, ventral side of tergite 1 laterally partly, inner side of fore and middle femora, as well as, outer side along black spot of hind ones and tarsal joints partly rufous. Pterostigma of fore wings brown. Frons with dense minute punctures and also with scattered larger punctures (Fig. 22), mesonotum (Fig. 24—25) and mesopleura with deep and dense punctures (Fig. 23), scutellum with longitudinal sulcus medially, postscutellum impressed medially, postnotum rather broad and irregularly wrikled except a small polished spot in the middle before propodeum (Fig. 24), latter irregularly and rather coarsely rugose, gradually convex on its basal third, flat in apical two-thirds, last abdominal sternite with a projecting apical part whose apex truncate in profile. Longer hairs of frons erect, rather short and sparse.

♂. — Length 10 mm. Similar to female, but whole lower face (= below antennal sockets) yellow, scutellum also with a transversal yellow streak, hind black margin of tergite 1 broader, tergite 3 black only with a small transversal yellow streak posteriorly, tergite 7 yellow, last sternite not projecting, subgenital plate broadly truncated apically, second to fourth joints of fore tarsi about as long as wide, second joint of middle ones twice as long as wide.

Specimens examined: Tadzhik SSR: "ur. Rujdast'y 3000 m. 40 km N. Stalinb. 4. IX. 37. GUSSAKOVSKIJ", "K. GUSSAKOVSKAVA" 1♀ holotype (Leningrad) and 1♂ allotype Hym. Typ. No. 3647 (Budapest).

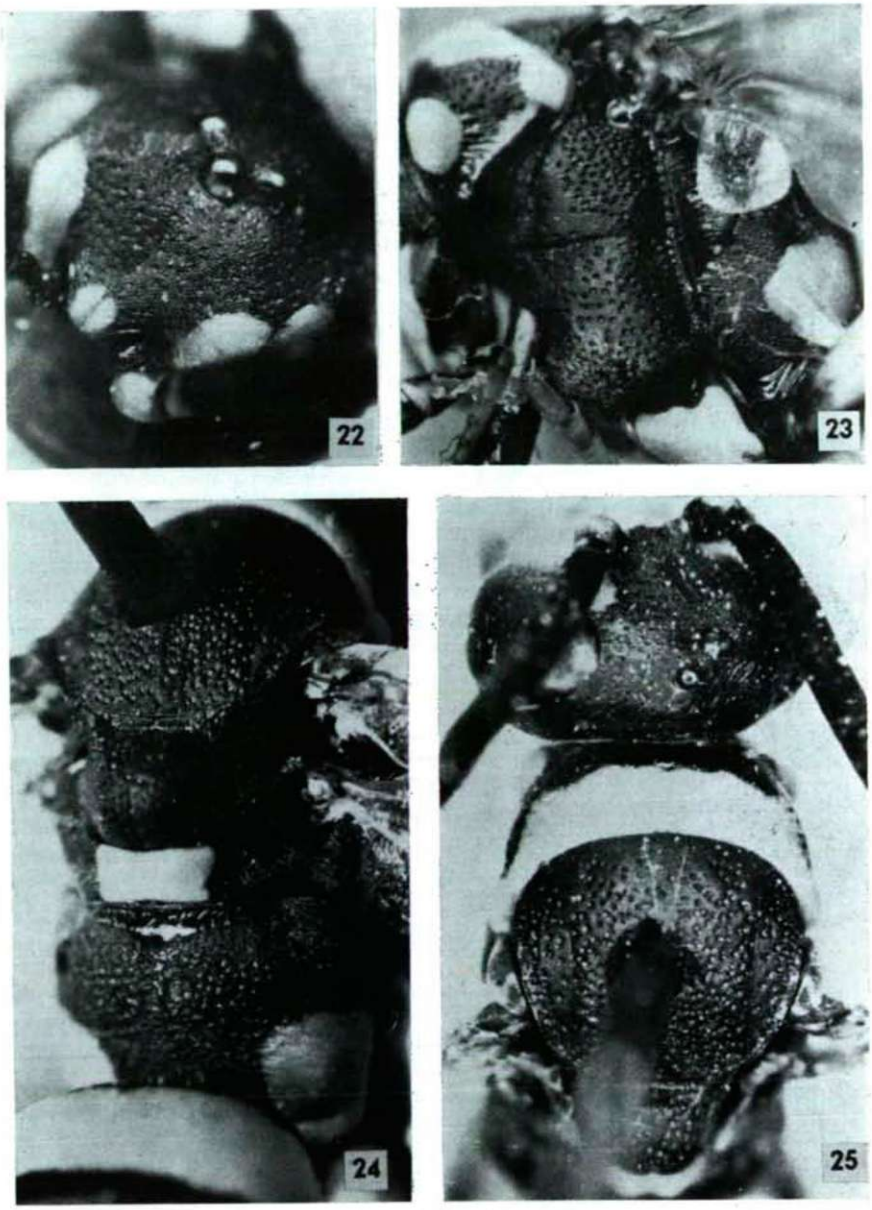
Related to *solskyi* RADOSZKOVSKI, but differs chiefly as follows: propodeum not irregularly wrinkled, not only finely transversally wrinkled, yellow spots on pronotum and on body not smaller, yellow spots of tergite 1 not connected, etc.

I have named this species in honour of the excellent Russian specialist of Chalcidoidea, V. A. TRJAPITZIN (Leningrad).

Ceropales erythropodus GUSSAKOVSKIJ

Ceropales erythropoda GUSSAKOVSKIJ, 1926, Revue Russe d'Entom., *20*:253♀♂
Ceropales erythropoda: 1931, GUSSAKOVSKIJ, Ann. Mus. Zool. Acad. Sci. l'URSS, *32*: 7, 19♀♂
Ceropales erythropodus: 1977, MÓCZÁR, Ann. Hist.-nat. Mus. Nat., Hung. *69*:256♀♂ Taf. I. Fig. 1—3.

Specimens examined: Turkmen SSR: "Turkestan", a small round gold coloured label, "k. A. JAKOVLEVA", "*Ceropales erythropoda* m. V. GUSSAKOVSKIJ" with author's original writing, 1♀ (Budapest). — Russian SSR (Asia=): "Minusinsk, Eniseish gub. Yu. Vagner 21. VII.



Figs. 22—25. *Ceropales trjapizini* sp. n., 22 = head (allotype); 23 = thorax in lateral view (allotype); 24 = thorax and tergite 1 (holotype); 25 = head and thorax viewed from above (holotype) (Orig.)

1897" (not 26 as in the diagnose), a small round gold label 1♂ (Leningrad); Gusinoje Selenginsk. u. Zab. Mihno 21—22. VII. 1927 1♂ (Leningrad); "Stantion Malta, Sibirishe Eisenbahn, Irkutsk Gav. 22. VI. 1907 leg. D. SMIRNOV", "*erythropoda* m. V. GUSSAKOVSKIJ", a small round gold label, 1♀ (Leningrad); "Ufer von Fluss Katun, Süd Altai 20. VI. 1898 leg. KLEMENTZ", a small round gold label 1♀ (Leningrad); Nertčinsk, South Siber. 25. VIII. 1910 1♂ RUDNITZKAYA (Leningrad); Balsino Čita uezd, Transbaikal, South Siber. 1. VIII. 1925 1♀ 1♂, VINOGRADOV (Leningrad). — Mongolia: "Sangin, Urga s. Mongolia, KOZLOV, 26. VII. 1905", a small round gold coloured label, 1♀ (Leningrad); "r. Tola Urga, s. Mongolia, KOZLOV, 11—12. VII. 1905", "*Ceropales erythropoda* m. GUSSAKOVSKIJ with author's hand writing, a small round gold coloured label, 1♂ (Leningrad); "r. Tola Urga, s. Mongolia, KOZLOV, 9—10. VII. 05", a small round gold label, no more label, 1♂ (Budapest); "okr. Urga, s. Mongolia, KOZLOV 5—7. VII. 05", a small round gold label, no more label 1♂ (Leningrad); Kholt sev. Gobi 14. VII. 1926 1♂ KOZLOV (Leningrad); Dol. r. Tolü Khalkha 1—10. VII. 1926 1♂ KOZLOV (Leningrad); N. Mongolei 1892 1♀ LEDER (*sibirica* det. KOHL) (Budapest); Tuin-gol, Khalkha, 29. VI. 1926 1♂ KIRITSHENKO (Leningrad); Lamingegen, Hangaj 9., 18., 27. VII. 1926 1♀ KIRITSHENKO (Budapest) 3♂ (Leningrad); Sarhaj-Hunduj, Khalkha 24. VII. 1909 KOZLOV 1♂ (Budapest). — China: Harbin (=Mandsuria) 25. VI. 1950 1♀ ALIN (Zürich).

Among the specimens examined there are some which represent the original material, GUSSAKOVSKIJ did not designate the type-specimens, therefore I suggest the first specimen with exact data "Minusinsk" as lectotype (Leningrad), the following specimens as paralectotypes: "okr. Urga" with Hym. Typ. No. as follows: "Turkestan" No. 3648 (Budapest); "Sangin" (Leningrad), "Tola Urga" 9—10. VII. 05, No. 3649 (Budapest); "Tola Urga" 11—12. VII. 05 (Leningrad).

This species resembles *C. maculatus maculatus* (FABRICIUS) owing to the sculpture of propodeum, but frons with more or less distinct and larger, scattered punctures. It is characterized by the light yellowish rufous legs, by the ivory spots on tergite 1 and by the narrow ivory apical bands of tergites 2—6(7), by the normal, not dilated tarsi, by the black streak of frons clypeus medially (♀), and by the slightly rough wrinkled surface of the propodeum (Fig. 21). Mesopleura and tergite 1 on specimen from Turkmen SSR partly with rufous spots.

Distribution: Mongolia, Turkmen-, Russian SSR (Asia=) and China.

Ceropales albicinctus albicinctus (ROSSI)

Evania albicincta ROSSI, 1970, Faun. Etrusca, *2*:57 nr. 800 T. 6. F. 8
Ceropales albicincta: 1931, GUSSAKOVSKIJ, Ann. Mus. Zool. Acad. Sci. l'URSS, *32*:5, 13♀♂
Ceropales albicinctus: 1947, BEAUMONT, Mitt. Schweiz. Ent. Ges., *20*:506, 515♀♂
Ceropales albicinctus: 1954, MÓCZÁR, Folia Ent. Hung., (S. n.) *7*: 149
Ceropales albicinctus albicinctus: 1969, PRIESNER, Naturkundl. Jb. Linz *115*, 119 ♀♂
Ceropales (s. s) *albicinctus:* 1972, WOLF, Insecta Helvetica Fauna *5* Hym.: 1968., 69 ♀♂ Fig. 489♂

Specimens examined: Switzerland: Schweiz VIII. 1883 2♀ KOHL (Vienna); Vallis, Misox (WOLF, 1972). — Italy: Pisa, Casciana terme 15—25. VII. 1963 1♀, 1—15. VIII. 1965 1♂ (Vienna); San Remo 1♀ (Budapest); Bozen 1893 1♂ KOHL (Budapest); Bologna 2. IX. 1962 1♂ (Vienna). — Austria: Pulgarn 2. IX. 1959 1♀ PRIESNER (Vienna); Ober Weiden 1♂1♀ MADER (Vienna); Eichkogel 8. VIII. 1909 1♀ RUSCHKA (Vienna). — Hungary: Simontornya 29. VI. 1931 1♀ on Enphorb. gerard. PILLICH (Vienna); Ungarn 1884 1♀ KOHL (Vienna); see MÓCZÁR, 1954 (Budapest); Gyula: Pósteleki e. 9. VII. 1963 2♀8♂ MÓCZÁR (Budapest). — Yugoslavia: Insl. Krk 2♀ MADER (Vienna). — Graecia: Tolon 17. VI. 1966 1♀ SCHLÄFLE (sabulicola PR. det. WOLF) (Budapest); Corfu 1♀ PAGANETTI (Budapest). Turkey: Erdschias 14. VII. 1♂ PENTHER (Budapest). — Jordan: Jericho 1900 1♂ SCHMIEDEKNECHT (Budapest). — Russian SSR: (Europe=) Kilintshi okr. Astrahan 25. V. 1930♂ OGLOBLIK (Leningrad); Temirchan-Shure (Dagest), 1♂ (Leningrad); Sochi 16—27. sen. 1926 4♀ 3♂ (Leningrad); 1♀1♂ (Budapest); Sarepta 6. 10. VI. 1907 3♂, 4♂5♀ BECKER, 13—23. VI. 1909 2♂7♀ KOCH, 3♀, 23—26. VIII. 1926 2♂ SHESTAKOV (Leningrad), 1♀1♂ (Budapest); okr. Krasnodar 12. IX. 1927 1♂ TELENGA (Leningrad); Woronesh 1♀ (Leningrad); Petrovskoe Staurop. okr. 3. IX. 1927 2♂ BELIZIN (Leningrad);

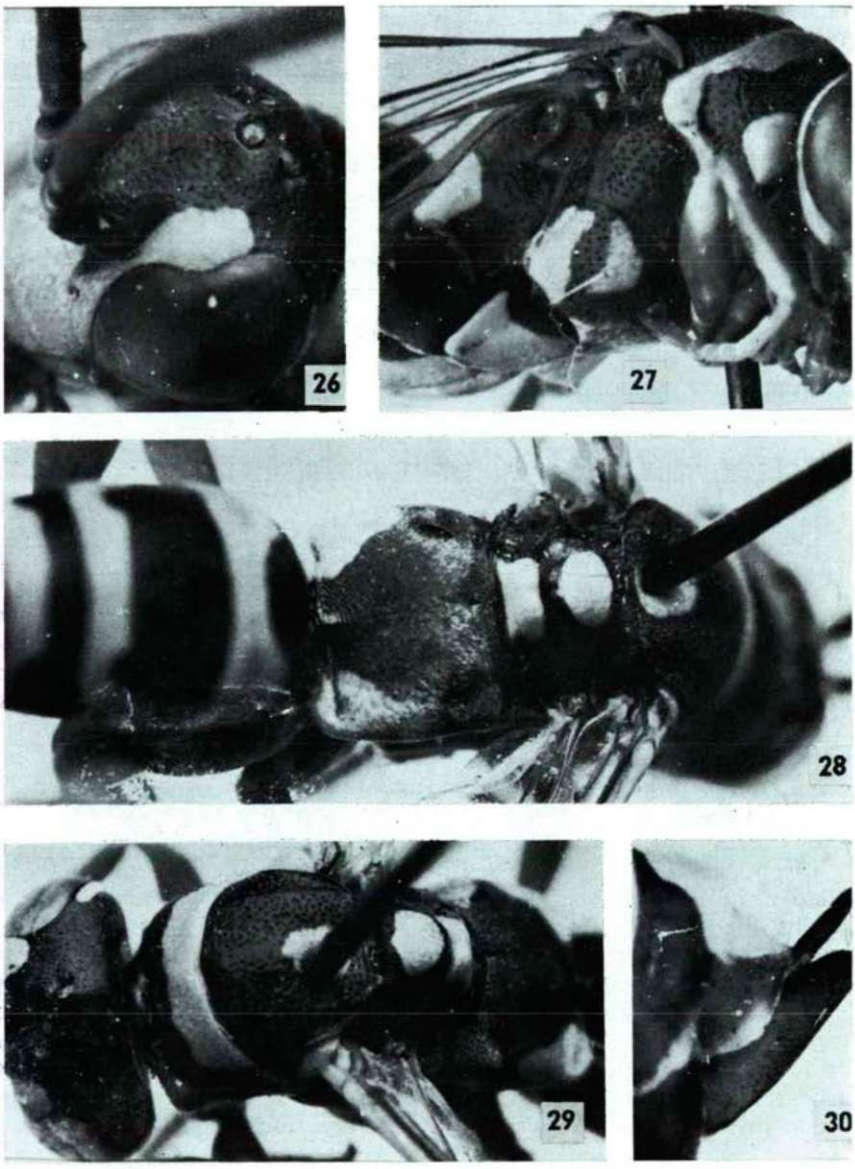
Concess. Krupp. Salks region, North Caucasus 3. VIII. 1931 1♂ ROHDENDORF (Budapest); okr. Orenburga 9. VIII. 1927 1♂ 27. VI. 1926 1♂ VORONTSOVSKI (Leningrad); (Asia=) Kongrad 1. VIII. 1923 1♀ POLTOVEK (Leningrad); Razyezd Soktui, Nertshinsk uezd Transbaikal, South Siber. 17. VI. 1929 1♂ VINOGRADOV (Leningrad); Prikumsk Krasnod. kraj 27. VI. 1926 1♀ PATIKTSA (Leningrad). — Moldavian SSR: Kotushep, Leovo Bendery uezd, Bessarabia 15. VII. 1911 1♂ TSHERMAVIN (Leningrad). — Ukrainian SSR: Kerč 3. V. 1906 1♀ (Leningrad); Saki, Krim, Tauria 30. VII.—10. VIII. 1913 4♂ PLIGINSKI (Leningrad); Simferopol 28. V. 1900 1♀ 10., 14., 24. VI. 1928 1♀1♂ KAZANSKIJ (Leningrad). — Georgian SSR: Tiflis 22. VII. 1901 1♂ SATUNIN (Leningrad). — Armenian SSR: Kaukazus Araxesthal 1♂ LEDER (Leningrad) Martuni 19. IX. 1927 1♂ KONSTANDYAN (Leningrad); Transkauk. 1886 1♀ HELENENDORF (Vienna). — Azerbaidzhan SSR: ACCP Kuduly Nuch. u. 29. VI. 1928 1♂ BOTSHARNIKOV (Leningrad); ACCP Tasbulah 19. VI. 1928 1♂ BOTSHARNIKOV (Leningrad). — Kazakh SSR: Semipalatinsk 1♂2♀ (Leningrad); okr. Uralska 15. VII. 1907 1♂ (Leningrad), 1♂ (Budapest); Uralsk 1♂ BARTEL (Vienna); Ber. Tschogur Mugodjarg. 26. VI. 1910 1♀1♂ (Leningrad); Ryn-Pesski 1♂ (Leningrad). — Japan (WOLF, 1972). (Fig. 37).

The species is easily recognizable by the propodeum with its fine sculpture weakly shining, by the silvery pubescence, by the narrow ivory apical bands of all tergites (except 1 very small ♂ from Sarepta and 1 ♂ from Krim, where tergites 1—6 interrupted and except males from Azerbaidzhan, where tergite 5 is black without ivory band and where the extent of ivory yellowish colour is small), by the ivory lower face and by the light rufous legs as well as the under side of antennae which are dark rufous on the upper side and infuscated at the end joints of specimen from ACCP Kuduly. The apical part of hind tibia (♀ ♂) more or less brownish darkened, as well as, hind tarsal joints and last tarsal joint of middle tarsi from Europaean territories; hind tibia largely black on a female specimen from Greece, and on males from Hungary (Gyula); more rufous and less infuscated on specimens from Sochi, Sarepta, Simferopol, lastly the above mentioned parts completely rufous and not darkened on specimens from Sochi, Sarepta and from Kongrad and Prikumsk.

Distribution: Central and partly South Europe, Russian-, Ukrainian-, Georgian-, Armenian-, Azerbaidzhan- and Kazakh SSR, Japan.

Ceropales albicinctus wolfi ssp. n.

♀. — Length 10,5 mm. Black. Inner orbits beginning at emargination of eyes with a large rounded spot (Fig. 26) outer orbits, lower side of tubercle between antennal sockets continuing in a triangular spot of lower face medially, clypeus, labrum, mandibles, a spot on lower side of antennal joints 1—2, posterior and lateral margin of pronotum, a spot on front callus of pronotum (Fig. 27), as well as, on mesonotum, scutellum and postscutellum, lateral spots on propodeum (Fig. 28), a large triangular and smaller semicircular spot on mesopleura below (Fig. 27), a broadely emarginate posterior band of tergite 1, posterior and lateral distinctly emarginated bands on tergites 2—4, bands broadened laterally especially on 2nd (Fig. 28), large medial spots on tergites 5—6, small round spots on sternites 2—5 laterally, apical small streak on trochanters, lower side of coxae except hind ones, latter with a triangular black spot, outer apical large spots on all femora; outer basal and apical spots on fore and middle tibia, as well as, on outer basis of hind one, ivory. Under side of antennal joints 3—12, apex of mandibles, apical two-thirds of trochanters, femora, tibia and tarsi except ivory spots, rufous; outer apex



Figs. 26—30. *Ceropales albicinctus wolfi* ssp. n., 26=head; 27=thorax in lateral view; 28=thorax and abdomen; 29=head and thorax viewed from above; 30=last abdominal segments (Orig.)

of hind tibia and tarsi only slightly darkened, lateral side of tergite 1 partly dark reddish translucent. Frons only poorly shining, with minute punctures and also with rather dense larger punctures (Fig. 26). Punctures of mesonotum (Fig. 29) and

mesopleura distinctly deeper (Fig. 27) than on frons, denser on mesonotum and slightly scattered on mesopleura. Postscutellum only slightly impressed medially. Postnotum broad, finely wrinkled longitudinally laterally and scattered medially (Fig. 28). Propodeum moderately convex basally, surface finely granulated with shallow scattered punctures and with silvery pubescence. Last sternite strongly compressed laterally, apex of projecting apical part rather short and rounded (Fig. 30).

♂. — Unknown.

Specimen examined: Turkey: "Anatolien, Pozanti, SEIDENSTÜCKER 8.6.60" 1♀ holotype Hym. Typ. No. 3650 (Budapest).

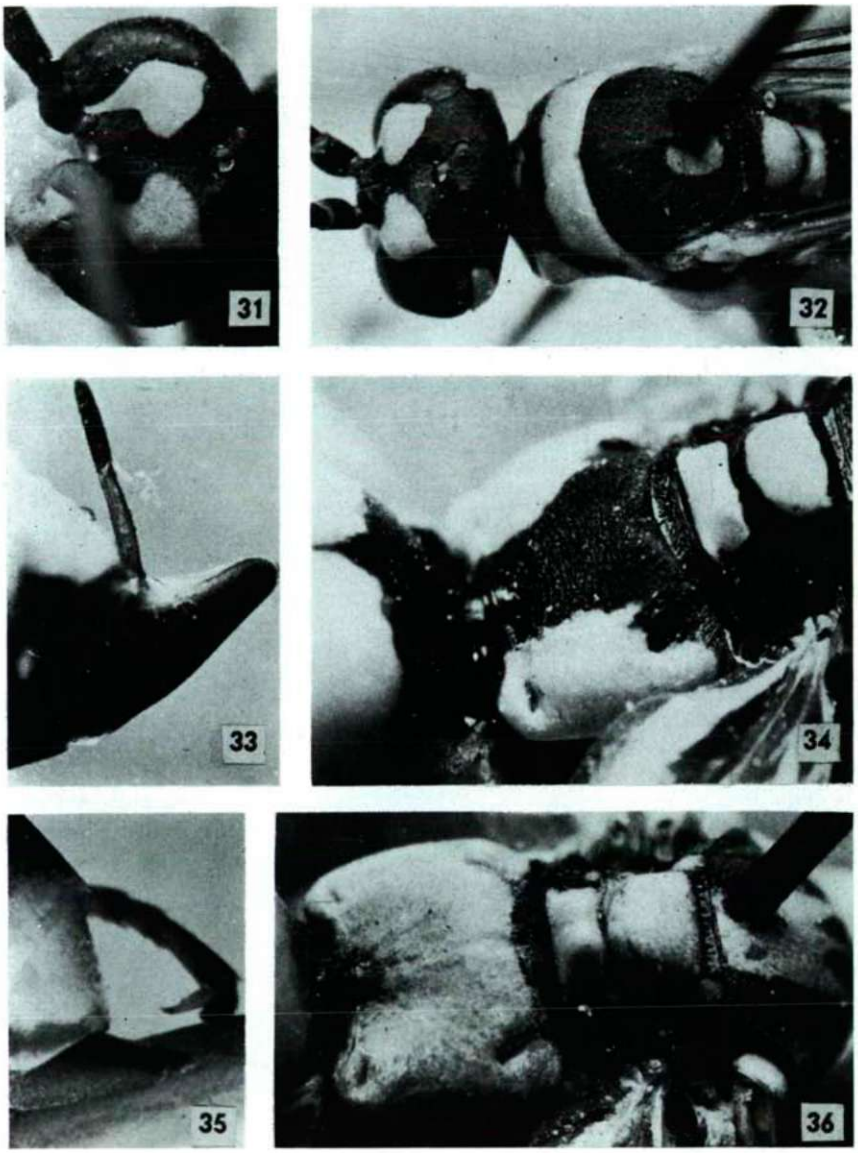
Related to *C. albicinctus albicinctus* ROSSI, but differs especially in its larger size, in its different light colour, e.g.: femora not completely rufous, mesopleura not with one ivory spot, light bands of tergites not narrow, punctures of body not shallow, etc.

I have named this subspecies in honour of the outstanding specialist of Pompiloidea. Mr. H. WOLF, Plettenberg (FR Germany).

Ceropales albicinctus mediterranicus ssp. n.

♀. — Length 8—9 mm. Black. Face below antennal sockets, clypeus, labrum, mandibles, inner and outer orbits broadly except on vertex, spots of inner orbits extending from emargination of eyes into large circular spots towards centre of frons (Fig. 31), lower side of antennal joints 1—2, posterior — lateral margins and a spot on front callus of pronotum, tegulae, scutellum and postscutellum, a spot on mesonotum (Fig. 32), two large spots on propodeum laterally (Fig. 34), a very small spot at basis of hind wings, a large spot at hind corner of mesopleuron, broad bands on tergites 1—6 posteriorly, only tergite 1 with a black excision medially (Fig. 34), sternites 2—5 with small spots laterally, underside of coxae and femora largely except black basis, partly also inner side of middle and hind ones, outer side of fore and middle tibia, as well as, metatarsi, yellow; antennal joints 3—12 rufous with moderately infuscated upper side, inner side of all femora, fore and middle tibia, as well as, tarsi partly rufous except a small basal spot, which is yellow. Frons mat, hardly shining, with fine very dense punctures and with some larger scattered and very shallow punctures (Fig. 31); ocelli forming an acute angle; punctures of pronotum, mesonotum and mesopleura deep and dense (Fig. 32), more scattered only on mesonotum laterally and on mesopleura. Postnotum slightly broader medially than laterally, with fine longitudinal wrinkles around deeper short impression in the middle and also with some fine transversal wrinkles basally in the middle (Fig. 34). Propodeum distinctly convex on its basal one-fourth, here with fine silvery pubescens and laterally flat on its declivous three-fourths part medially (in lateral view), surface finely granulated basally and with fine wrinkles towards base of abdomen, sometimes also with traces of transversal wrinkles on declivous part, surface with scattered shallow larger punctures in yellow lateral spots. Last sternite strongly compressed laterally, gradually narrowed apically with rounded apex (Fig. 33).

♂. — Length 7.5 mm. Similar to female both in colour and in sculpture, but



Figs. 31—34. *Ceropales albicinctus mediterraneus* ssp. n., 31 = head (holotype); 32 = head, pro- and mesonotum (holotype); 33 = last abdominal segments (paratype); 34 = scutellum-propodeum (paratype). — Figs. 35—36. *C. albicinctus seraxensis* RADOSZKOWSKI, 35 = last abdominal segments; 36 = mesonotum — propodeum (Orig.)

differs as follow: lateral small yellow streak not connected with lower large spot on pronotum and tergite 7 also yellow, upper side of antennal joints 3—13 rufous, hardly infuscated. Propodeum with rather deeper punctures laterally in yellow lateral spots.

The colour of this subspecies is uniform only in Cyprus, differs more on less from those from Morocco to Turkey as follows: the large spot on mesonotum absent in Spain and partly in Morocco, the spots of inner orbits extend from the emargination of the eyes only in a small degree and inner side parallel in Sardegna, Spain, Algeria and Morocco. Legs without rufous spots in Spain and partly (!) in Morocco. Black spots present on the basis of coxae usually and on trochanters (Sardegna, Morocco ♀ = Tetuan, not in ♂), trochanters black and black spots on base of femora (Turkey, Cyprus, Spain and partly Morocco ♂), trochanters and femora rufous on specimens from Algeria. One female from Morocco with completely rufous antennae, only the last joints darkened on upper side and 1 ♂ from Morocco the same but the joints 1—2 darkened above. There is 1 ♀ from Morocco with the whole upper surface darkened.

Specimens examined: Cyprus: "Zakaki Cyprus 19.6. 1936 leg. MAVROMOUSTAKIS" 1 ♀ holotype (Leiden); "Zakaki Cyprus 24. 6. 1936 leg. MAVROMOUSTAKIS" 1 ♂ allotype Hym. Typ No. 3651 (Budapest); "Zakaki Cyprus 29. 6. 1936 leg. MAVROMOUSTAKIS" 1 ♀ paratype Hym. Type No. 3652 (Budapest); "Cyprus Yermasogia River 22. 7. 1966 leg. MAVROMOUSTAKIS" 1 ♀ paratyp. Hym. Typ. No. 3653 (Budapest); "Cyprus Limassol 7. 6. 63" 1 ♀ paratype (Leiden). — TURKEY: Antakya 5. VI. 1965 1 ♀ SCHWARZ (Budapest). — Sardegna: Porth Torres 6. VI. 1952 1 ♂ CERESA (Budapest); Ploaghe 9. VI. 1952 1 ♀ CERESA (Zürich). — Spain: Las Correderas (Jaén) 600 m 17. VI. 1961 (MALAISE trap) 1 ♀ exc. RMNH (Budapest). — Tunesia: Tunis 1 ♂ SCHMIEDEKNECHT (Budapest). — ALGERIA: 2 ♂ (Budapest); Mascara 1 ♀ ROTH (Zürich); Mascara 12. VI. 1908 1 ♀ (Budapest). — Morocco: Tetuan 8. VI. 1955 1 ♀ ANDRADE (Zürich), 1 ♂ (Budapest). (Fig. 37).

In sculpture the subspecies is similar to *C. albicinctus albicinctus* ROSSI but the colour richer yellow and not ivory. It differs from *C. albicinctus seraxensis* RADOSZKOWSKI chiefly that its abdomen is never completely yellow, tergites always with black bands anteriorly and never with rufous spots; vertex never yellow or rufous behind ocelli; head, thorax with less yellow.

Distribution: Widely distributed but occur sporadically in Turkey, Cyprus, Sardegna, Spain, Tunesia, Algeria and Morocco.

Ceropales albicinctus seraxensis RADOSZKOWSKI

Ceropales histrio F. var. *seraxensis* RADOSZKOWSKI, 1893, Trudÿ russk. ent. Obshch., *27*:61 ♀
Ceropales albicincta ssp. *seraxensis:* 1931, GUSSAKOVSKIJ, Ann. Mus. Zool., *32*:5,14 ♀♂.
Ceropales albicinctus ssp. *seraxensis:* 1947, BEAUMONT, Mitt. Schweiz. Ent. Ges., *20*:517.

Specimens examined: Ukrainian SSR: Askanija-Nova 17. VII. 1924 1 ♀ GUSSAKOVSKIJ (Budapest). — Azerbaidzhan SSR: ACCP Sabirabad 23. VII. 1928 1 ♂ (Budapest). — Iran: Persia 1 ♀ (Budapest). — Turkmen SSR: Ashabad 1 ♀ AHNGER (Leningrad); Imam-baba 1 ♂ (Leningrad). — Uzbek SSR: Jargak Katorg 19. VI. 1926 1 ♀ GUSSAKOVSKIJ (Leningrad); ? Dabverzanyek 12. V. 19 27 1 ♂ (Budapest); Kuropatkino 18. V. 1930, 29—30. VII. 1930, 12. VIII. 1930 11 ♀ 1 ♂ GUSSAKOVSKIJ (Leningrad), 3 ♀ 4 ♂ (Budapest); Khiva, Ravat 20. V. 1927, 27. VII. 1927 1 ♀ 1 ♂ (Leningrad). — Tadzhik SSR: okr. Kulyaba 24. VII. 1933 1 ♂ POPOV (Leningrad); 1 ♀ (Budapest); Stalinabad, Dušambe 28. VII. 1934 1 ♀ GUSSAKOVSKIJ (Budapest). — Kazakh SSR: Semipalatinsk 1 ♀ (Leningrad). (Fig. 37).

This subspecies is similar to *albicinctus albicinctus* ROSSI sculpturally but differs by the extent of yellow spots and bands. Usually light yellow: nearly the whole

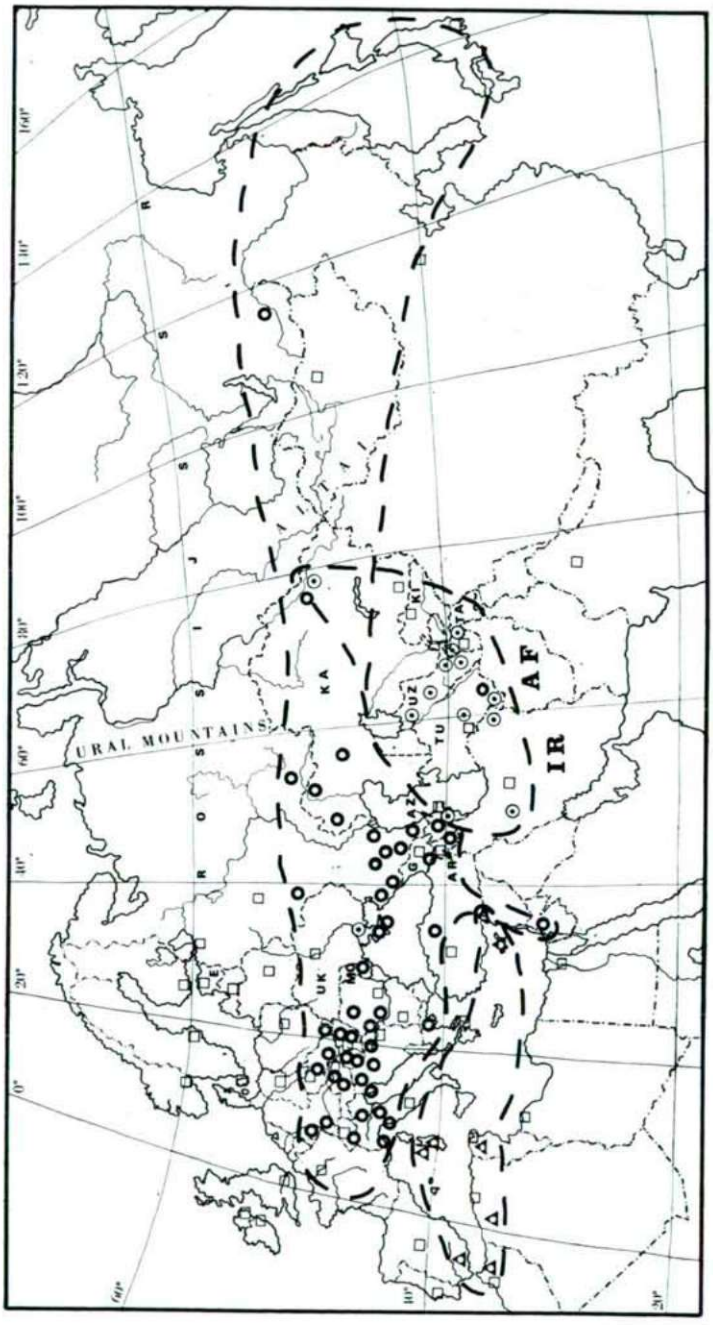


Fig. 37. The distributions of *Ceropales albicinctus albicinctus* Rossi, of *C. albicinctus mediterranicus* ssp. n. and *C. albicinctus seraxensis* Radoszkowski according to the data given in the text (Orig. by A. Fazekas)

pronotum and tergite 1, sometimes whole abdomen and propodeum largely, very often with rufous spots on tergites 1—2. Large yellow spots on mesonotum, scutellum, postscutellum (Fig. 36) and on lateral sides of mesopleura. Lower face yellow, the spots of inner orbits extend from the excision of the eyes into large pointed spots toward the centre of the frons, these spots are more reduced on specimen from the Ukrainian and Iran. The rufous spots are only translucent on specimen from the Ukrainian SSR and Iran or also on coxae and mesopleura (from the Ukrainian SSR) present and was not found in Turkmen SSR. Legs completely light yellow or partly rufous especially on the inner side of hind femora or on hind tibia. Small black spots may be present only at the base of coxae and trochanters. Antennae usually yellowish rufous, sometimes with very small black spots on upper side of joints 1 (Turkmen SSR), 1—2 (Tadzhik SSR) and only moderately darkened (on specimen from the Ukrainian SSR and Iran). Last sternite strongly compressed laterally and gradually narrowed apically with rather sharp pointed apex (Fig. 35).

Distribution: Chiefly in Uzbek-, scattered in Turkmen-, Ukrainian-, Azerbaidzhan-, Tadzhik-, East Kazakh SSR and Iran.

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